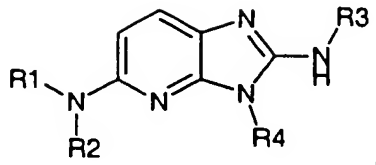
In the claims:

Claim 1 (currently amended) A compound of the formula



(I)

in racemic, or enantiomeric form or any combinations of these forms and wherein:

R_1 and R_2 are, independently, selected from the group consisting of hydrogen, $(C_1\text{-}C_8)$alkyl optionally substituted by hydroxy, $(C_2\text{-}C_6)$alkenyl; bicycloalkyl, $-(CH_2)_n\text{-}X_1$ and $-X\text{-}(CH_2)_{n'}\text{-}X'_1$;

X is selected from the group consisting of –C(O)- or –C(S)-NH-;

X_1 is selected from the group consisting of $(C_1\text{-}C_6)$alkoxy, $(C_3\text{-}C_7)$cycloalkyl, adamantyl, heterocycloalkyl, aryl and heteroaryl,

The $(C_3\text{-}C_7)$cycloalkyl, heterocycloalkyl, aryl and heteroaryl being optionally substituted by at least one member selected from the group consisting of:

$-(CH_2)_{n1}\text{-}V_1\text{-}Y_1$, halo, nitro and cyano;

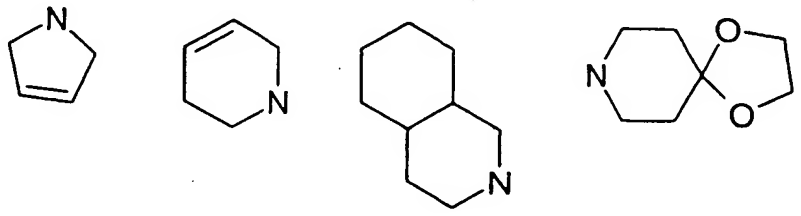
V_1 is selected from the group consisting of –O-,-S- or covalent bond;

Y_1 is $(C_1\text{-}C_6)$alkyl optionally substituted by at least one halo, or aryl;

n and n' are integers from 0 to 6 and n_1 an integer from 0 to 2 (it being understood that when n is equal to 0, then X_1 is not alkoxy);

X'_1 is selected from the group consisting of hydrogen, $(C_1\text{-}C_6)$alkyl optionally substituted by at least one halo, $(C_3\text{-}C_7)$cycloalkyl; and aryl optionally substituted by at least one member: halo, nitro, cyano, $(C_1\text{-}C_6)$alkyl-carbonyl, $(C_1\text{-}C_6)$alkyl optionally substituted by at least one halo, and $(C_1\text{-}C_6)$alkoxy optionally substituted by at least one halo;

or R_1 and R_2 form together, with the nitrogen atom to which they are attached, a heterobicycloalkyl or a heterocycloalkyl optionally substituted by at least one member selected from the group consisting of: hydroxy, $(C_1\text{-}C_6)$alkyl optionally substituted by hydroxy, $(C_1\text{-}C_6)$alkyl-carbonyl, $-(CH_2)_{n''}\text{-}A$, $-C(O)\text{-}NV_1'\text{-}Y_1'$, and heterocycloalkyl; or R_1 and R_2 form together a member selected from the group consisting of:



$V_1'$and Y_1' are, independently, hydrogen or $(C_1\text{-}C_6)$alkyl;

A is aryl optionally substituted by at least one

member selected from the group consisting of: halo, nitro, cyano, (C_1-C_6)alkyl optionally substituted by at least one member selected from the group halo, and

(C_1-C_6)alkoxy optionally substituted by at least one halo;

n" is an integer from 0 to 2;

R_3 is selected from the group consisting of $-Z_3$, $-C(R_{z3})(R'_{z3})-Z_3$ $-C(R_{z3})(R'_{z3})-(CH_2)_p-Z_3$ and $-C(O)-Z'_3$;

R_{z3} and R'_{z3} are, independently, hydrogen or (C_1-C_6)alkyl;

Z_3 is selected from the group consisting of Z_{3a}, Z_{3b}, Z_{3c}, Z_{3d}, and Z_{3e};

Z_{3a} is (C_1-C_6)alkyl or (C_2-C_6)alkenyl;

Z_{3b} is selected from the group consisting of (C_1-C_6)alkoxy,

$C_1-C_6)$alkylthio, $C_1-C_6)$alkylamino and di((C_1-C_6)alkyl)amino;

Z_{3c} is aryl or heteroaryl; the aryl and heteroaryl being optionally substituted by at least one member selected from the group consisting of: halo, cyano, nitro, azido, oxy and $-(CH_2)_{p'}-V_3-Y_3$;

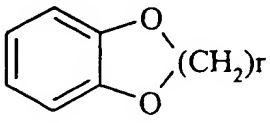
V_3 is selected from the group consisting of $-O-$, -S-, -C(O)-, -C(O)-O-, -O(CO)-, $-SO_2-$, $-SO_2NH-$, $-NR'_3-SO_2-$, $-NR'_3-$, $-NR'_3-C(O)-NR'_3-$, $-C(O)-NR'_3-$ $-NH-C(O)-NR'_3-$ and covalent bond;

Y_3 is selected from the group consisting of hydrogen,

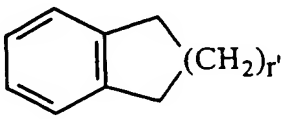
$(C_1\text{-}C_6)$alkyl optionally substituted by at least one halo; aryl optionally substituted by at least one member selected from the group consisting of: halo, nitro, $(C_1\text{-}C_6)$alkyl and $(C_1\text{-}C_6)$alkoxy; and aryl-$(C_1\text{-}C_6)$alkyl optionally substituted by at least one member selected from the group consisting of: halo, nitro, $(C_1\text{-}C_6)$alkyl and $(C_1\text{-}C_6)$alkoxy;

Z_{3d} is selected from the group consisting of $(C_1\text{-}C_6)$alkoxy-carbonyl, amino-carbonyl, $(C_1\text{-}C_6)$alkylamino-carbonyl and di($(C_1\text{-}C_6)$alkyl)amino-carbonyl;

Z_{3e} is selected from the group consisting of $(C_1\text{-}C_6)$alkyl-C(O)-NH-, $(C_3\text{-}C_7)$cycloalkyl, heteroalkyl, heterocycloalkyl,



r = 1, 2 and



r'= 1, 2

the $(C_3\text{-}C_7)$ cycloalkyl and heterocycloalkyl being optionally substituted by at least one oxy or $(C_1\text{-}C_6)$alkyl,

Z'_3 is aryl optionally substituted by at least one member selected from the group consisting of: halo, nitro and $-(CH_2)_{p''}\text{-}V'_3\text{-}Y'_3$;

V'_3 is selected from the group consisting of -O-, -C(O)-,

-C(O)-O-, -O(CO)-NR'$_3$-, -NR'$_3$-C(O)-, -NH-C(O)-NR'$_3$- and covalent bond;

Y'$_3$ is hydrogen or (C_1-C_6)alkyl optionally substituted by at least one halo;

R'$_3$ is selected from the group consisting of hydrogen, (C_1-C_6)alkyl and (C_1-C_6)alkoxy;

p, p' and p" are, independently, an integer from 0 to 6;

R_4 is -$(CH_2)_s$-R'$_4$

R'$_4$ is heterocycloalkyl containing at least one nitrogen atom and optionally substituted by (C_1-C_6)alkyl or arakyl; heteroaryl containing at least one nitrogen atom and optionally substituted by (C_1-C_6)alkyl; and -$NW_4W'_4$

W_4 is hydrogen or (C_1-C_8)alkyl;

W'$_4$ is -$(CH_2)_{s'}$-Z_4;

Z_4 is selected from the group consisting of hydrogen,

$(C_1\text{-}C_8)$alkyl; $(C_2\text{-}C_6)$alkenyl; $(C_3\text{-}C_7)$cycloalkyl optionally substituted by at least one $(C_1\text{-}C_6)$alkyl; cyclohexene; heteroaryl and aryl optionally substituted by at least one member selected from the group consisting of:

$-(CH_2)_{s"}\text{-}V_4\text{-}Y_4$, halo and nitro;

V_4 is selected from the group consisting of –O-, -S-,

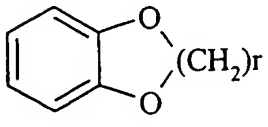
-NH-C(O)-, $-NV_4'$- and covalent bond;

Y_4 is hydrogen or $(C_1\text{-}C_6)$alkyl optionally s substituted by at least one halo;

V_4' is hydrogen or $(C_1\text{-}C_6)$alkyl;

s" is an integer from 0 to 4;

or Z_4 is



r = 1, 2

s and s' are, an integer from 0 to 6;

and a pharmaceutically acceptable salt thereof.

Claim 2(currently amended) A compound of Claim 1, wherein

R_1 and R_2 are, independently, selected from the group consisting of hydrogen, (C_1-C_8)alkyl, bicycloalkyl, $-(CH_2)_n-X_1$ and $-X-(CH_2)_{n'}-X'_1$;

X is –C(O)- or –C(S)-NH-;

X_1 is selected from the group consisting of (C_1-C_6)alkoxy, (C_3-C_7)cycloalkyl optionally substituted by (C_1-C_6)alkyl, and heteroaryl;

X'_1 is selected from the group consisting of hydrogen, (C_1-C_6)alkyl optionally substituted by at least one halo,
(C_3-C_7)cycloalkyl or aryl optionally substituted by (C_1-C_6)alkyl-carbonyl;

or R_1 and R_2 form together, with the nitrogen atom to which they are attached, are heterobicycloalkyl or a heterocycloalkyl optionally substituted by at least one member selected from the group consisting of: (C_1-C_6)alkyl, (C_1-C_6)alkyl-carbonyl and $-(CH_2)_{n''}-A$;

A is aryl optionally substituted by at least one: halo or (C_1-C_6)alkyl;

n" is an integer from 0 to 1;

R_4 is $-(CH_2)_s-R'_4$

R'_4 is heterocycloalkyl containing at least one nitrogen atom and optionally substituted by $(C_1\text{-}C_6)$alkyl; or $-NW_4W'_4$

W_4 is hydrogen, $(C_1\text{-}C_8)$alkyl;

W'_4 is $-(CH_2)_{s'}\text{-}Z_4$;

Z_4 is selected from the group consisting of hydrogen,
$(C_1\text{-}C_8)$alkyl and aryl optionally substituted by at least one: $-(CH_2)_{s''}\text{-}V_4\text{-}Y_4$;

V_4 is -O-;

Y_4 is $(C_1\text{-}C_6)$alkyl optionally substituted by at least one halo;

s" is an integer from 0 to 4;

s and s' are, independently, an integer from 1 to 4;

or a pharmaceutically acceptable salt thereof.

Claim 3 (currently amended) A compound of Claim 2, wherein it comprises at least one of the following characteristics:

- cycloalkyl chosen from cyclopropyl, cyclobutyl and cyclohexyl;

- bicycloalkyl is bicyclo[2,2,1]heptane;
- heterobicycloalkyl is 7-aza-biclyclo[2,2,1]heptane;
- aryl is phenyl;
- heteroaryl is furyl;
- heterocycloalkyl is chosen from piperidine, morpholine and piperazine;
- ~~heterocycloalkyl is chosen from piperidine, morpholine and piperazine;~~

or a pharmaceutically acceptable salt thereof.

Claim 4 (previously presented) A compound of Claim 1 wherein

R_1 and R_2 are, independently, hydrogen, $(C_1\text{-}C_6)$alkyl or $\text{-}(CH_2)_n\text{-}X_1$ or $\text{-}X\text{-}(CH_2)_{n'}\text{-}X'_1$;

X is –C(O)-;

X_1 is $(C_3\text{-}C_7)$cycloalkyl;

X'_1 is hydrogen or $(C_1\text{-}C_6)$cycloalkyl;

n is 0 or 1; n' is an integer from 0 to 5;

or R_1 and R_2 form together, with the nitrogen atom to which they are attached, are heterocycloalkyl optionally substituted by at least one $(C_1\text{-}C_6)$alkyl; or a pharmaceutically acceptable salt thereof.

Claim 5 (previously presented) A compound of Claim 4, wherein the $(C_3\text{-}C_7)$cycloalkyl of X_1 and X'_1 is chosen from cyclopropyl, cyclobutyl and cyclohexyl; and heterocycloalkyl that together form R_1 and R_2, is piperidine; or a pharmaceutically acceptable salt thereof.

Claim 6 (previously presented) A compound of Claim 1 wherein

R_4 is $-(CH_2)_s\text{-}R'_4$

R'_4 is heterocycloalkyl containing at least one nitrogen atom and optionally substituted by $(C_1\text{-}C_6)$alkyl; or $-NW_4W'_4$

W_4 is hydrogen or $(C_1\text{-}C_8)$alkyl;

W'_4 is $-(CH_2)_{s'}\text{-}Z_4$;

Z_4 is hydrogen or $(C_1\text{-}C_8)$alkyl;

s and s' are, independently, an integer from 2 to 4;

or a pharmaceutically acceptable salt thereof.

Claim 7 (previously presented) A compound of Claim 6, wherein the heterocycloalkyl of R'_4 is: piperidine or morpholine; or a pharmaceutically acceptable salt thereof.

Claim 8 (currently amended) A compound of Claim 1 wherein R_3 is $-C(O)-Z'_3$

Z'_3 is aryl optionally substituted by at least one member selected from the group consisting of halo and $-(CH_2)_{p"}-V'_3-Y'_3$;

V'_3 is -O- or covalent bond;

Y'_3 is hydrogen or (C_1-C_6)alkyl optionally substituted by at least one halo;

p" is an integer from 0 to 2;

or a pharmaceutically acceptable salt thereof.

Claim 9 (previously presented) A compound of Claim 1 wherein R_3 is selected from the group consisting of Z_3, $-C(R_{z3})(R'_{z3})-Z_3$ and $-C(R_{z3})(R'_{z3})-(CH_2)_p-Z_3$; or a pharmaceutically acceptable salt thereof.

Claim 10 (previously presented) A compound of Claim 9, wherein R_3 is $-Z_3$ and Z_3 is selected from the group consisting of Z_{3b}, Z_{3c}, Z_{3e}; or a pharmaceutically acceptable salt thereof.

Claim 11 (previously presented) A compound of Claim 10, wherein Z_3 is Z_{3c} and Z_{3c} is aryl; or a pharmaceutically acceptable salt thereof.

Claim 12 (previously presented) A compound of Claim 11, wherein Z_{3c} is phenyl substituted by at least one member selected from the group consisting of : halo, nitro and $-(CH_2)_{p'}-V_3-Y_3$;

V_3 is selected from the group consisting of -O-, -S-, -C(O)-, -C(O)-O-, $-SO_2NH-$, $-NR'_3-C(O)-$, $-C(O)-NR'_3-$ and covalent bond;

R'_3 is hydrogen;

Y_3 is hydrogen or (C_1-C_6)alkyl optionally substituted by at least one halo; or a pharmaceutically acceptable salt thereof.

Claim 13 (currently amended) A compound of Claim 11, wherein Z_{3c} is phenyl substituted by at least one ~~formula~~ $-(CH_2)_{p'}-V_3-Y_3$;

V_3 is selected from the group consisting of -C(O)-, -C(O)-O-, and

-C(O)-NR'$_3$-;

R'$_3$ is hydrogen;

Y_3 is hydrogen or (C_1-C_6)alkyl; or a pharmaceutically acceptable salt thereof.

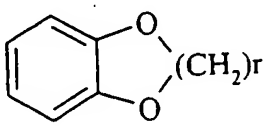
Claim 14 (previously presented) A compound of Claim 9, wherein R_3 is -C(R_{z3})(R'$_{z3}$)-Z_3 and Z_3 is Z_{3d} or Z_{3e}; or a pharmaceutically acceptable salt thereof.

Claim 15 (previously presented) A compound of Claim 9, wherein R_3 is -C(R_{z3})(R'$_{z3}$)-(CH_2)$_p$-Z_3 and Z_3 is Z_{3c}, Z_{3d} or Z_{3e}; or a pharmaceutically acceptable salt thereof.

Claim 16 (previously presented) A compound of Claim 15, wherein Z_3 is Z_{3d} or Z_{3e};

Z_{3d} is (C_1-C_6)alkoxy-carbonyl or amino-carbonyl;

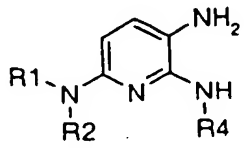
Z_{3e} is selected from the group consisting of (C_1-C_6)alkyl-C(O)-NH-, heterocycloalkyl optionally substituted by oxy, or



r = 1, 2;

or pharmaceutically acceptable salt thereof.

Claim 17 (previously presented) A process for the preparation of a compound of Claim 1 comprising reacting a compound of the formula:



wherein R_1, R_2, R_4 have the meaning of Claim 1, with an isothiocyanate of the formula $R_3N=C=S$ in which R_3 has the meaning indicated in Claim 1, in the presence of a coupling agent or of yellow mercury (II) oxide in the presence of sulfur, for a duration of 3 to 48 hours, in a protic or aprotic solvent, at a temperature of 50 to 80°C.

Claims 18 to **22** (cancelled).

Claim 23 (previously presented) A pharmaceutical composition for treating weight disorders comprising an effective amount of a compound of Claim 1 sufficient to treat said disorder and an inert pharmaceutical carrier.

Claim 24 (previously presented) A method of treating a condition selected from the group consisting of weight disorders, mental disorders, pain and sexual activity disorders in warm-blooded animals comprising administering to warm-blooded animals in need thereof an amount of a compound of Claim 1 sufficient to treat said condition.

Claim 25 (previously presented) The method of Claim 24 wherein the condition being treated is anxiety and depression.

Claim 26 (previously presented) The method of Claim 24 wherein the condition being treated is pain.

Claim 27 (previously presented) The method of Claim 26 wherein the pain is neuropathic pain.